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ABSTRACT

Bangladesh stresses the importance of education responsive to the country's development needs and capable of producing, through formal or non-formal methods, skilled, employable manpower. Although no pre-vocational training exists, new curricula have introduced practical work experience in the primary schools and have integrated agriculture, industry, social welfare, and home economics with general education at the secondary level in order to help reduce school dropout and youth unemployment problems. Post-secondary education remains remote and theoretical despite the push to combine work experience and education. Only highly specialized professional degree or vocational/technical programs utilize productive work experience during training. While Bangladesh plans more polytechnics and vocational/technical institutes, current emphasis appears to be centered on improving the quality of life and lowering the 75% illiteracy rate in the poverty ridden country through practical adult education programs of rural development, functional literacy, health, family planning, home economics, agriculture, and fisheries. The Bangladesh Rural Advancement Committee attempted to provide non-formal education in these areas in a self-sustaining program of rural development in the Sylhet district. The program continued for four years but had little funding, an ill-trained staff, and met with limited success. (SB)

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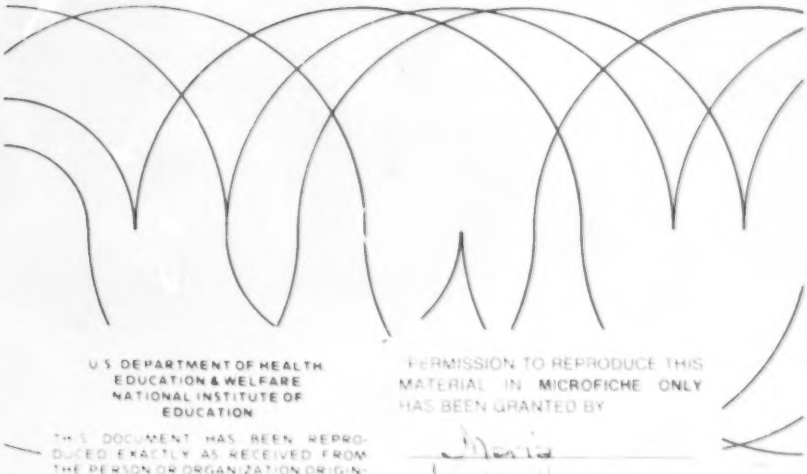
COMBINING EDUCATION AND WORK

Experiences in Asia and Oceania

Bangladesh



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Bangladesh

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CONTENTS

PREFACE v

PART I

A. General Description and Policy Trends 1

B. Re-orienting School Programmes to Combine Education and Productive Work Experiences 5

C. Combining Education and Work for Out-of-School Populations 23

PART II

A. Project Report: Bangladesh Rural Advancement Committee (BRAC) 25

B. Project Report: 'Muktangan' (outdoor) Primary Education Project 43

PREFACE

Many countries in Asia and Oceania, as in other regions of the world, are engaged in reorienting their education systems. A basic concern underlying these efforts is to make education functional and relevant to the needs of the individual and of the society. It is increasingly felt that the education systems tend to get isolated from the larger social, cultural and development goals of the society. This isolation is engendered when the process of learning is separated from the context of action and work, and is nowhere as marked as in the failure of education to provide children and youth with an active comprehension of the world of work.

The response to the problem is reflected in a variety of programmes underway in several countries of Asia and Oceania. Considering the importance of the issue, the Fourth Regional Conference of Ministers of Education and Those Responsible for Economic Planning in Asia and Oceania (24 July - 1 August 1978, Colombo) has "Interlinking of Education and Productive Work" as one of the major themes of the Conference.

The country studies presented in the present series were received in response to Unesco's request to the Member States. By the time of going to the press, studies from twelve countries were received and they comprise the present series being issued on the occasion of the Fourth Regional Conference. The assistance of Unesco National Commissions in these countries in having the studies prepared and of the organizations and scholars who have been responsible for them is gratefully acknowledged. These studies cover a wide spectrum of experiences, ranging from experimental projects to comprehensive, system-wide programmes, and detailed descriptions are offered of one or more projects in actual operation. It is hoped to add to the series as more country studies become available.

Opinions expressed in this publication are those of the author and do not necessarily represent the views of Unesco.

PART I

A. General Description and Policy Trends

In the distant past education in Bangladesh was considered to be a monopoly of the urban elite who looked down upon their toiling brethren and took pride in taking up white-collar jobs to serve their alien masters. In the more recent past, prior to 1971, education was still urban-biased and did not function as a real force for social and economic transformation. Today there has been a shift away from the traditional concept. Education is no longer conceived as a treasure hidden in books to be sought after only by the privileged class. Bangladesh, for some time now, has been striving hard to build its own economic, social, political and educational systems.

The fundamental principles of State Policy about education, as incorporated in the Constitution of the country, include an emphasis on, "... relating education to the needs of society and producing properly trained and motivated citizens to serve these needs...". The objectives of the First Five Year Plan (1973-78) envisaged that education must be responsive to the specific requirements of the nation. It must have relevance to future work and life, and must provide adequate preparation for productive employment. The system should produce, whether through formal or non-formal education, a cadre of skilled manpower required for development needs of the country. It must no longer turn out scores of "educated" men who remain mostly unemployed or unemployable.

In pursuance of the objectives of the Plan certain strategies were adopted, which stressed that science education in both schools and colleges will be strengthened through the provision of well-equipped laboratories and more practical lessons. As well, vocational and technical training at different levels were to be given greater emphasis with provisions for enlarged on-the-job training.

In consonance with the above objectives and strategies and as a follow-up of the First Five Year Plan, the

Two Year Plan (1978-80) included action programmes for the expansion of the facilities of technical and vocational education in the rural areas.

The Bangladesh Education Commission (1974) put considerable emphasis on "work experience" and devoted a chapter in its report to the subject. The substance of the Education Commission's views on "work experience", rendered into English may be gleaned from the following paragraphs of its report:

> The education system of the country is principally book-oriented and devoid of work experience; as a result, a degenerated sense of value and indifference to manual labour have developed in the educated society. The educated and those who are not generally engaged in manual labour depend on others even for the most common tasks that require physical labour. Work experience is a valuable tool of education and it can help remove the undesirably predominant social difference between those engaged in intellectual work and those occupied with manual labour. The nation, therefore, has to be aware that our children properly learn to respect manual labour from their early age. The education system has to be reorganized in such a way that sound work-based experiences are incorporated in the curriculum from primary through university stage. Such experiences will not only inculcate in the learners the dignity of labour but will also motivate them to play a significant role in raising national productivity and in doing social service.
>
> The responsibility for preparing work plans for manual work should lie with the respective teachers of schools, colleges and universities.
>
> In order to successfully implement the plan of 'work experience' proper attention needs to be given to the following three factors: (a) a comprehensive programme of work experiences, with scope for gradual expansion at each stage of education, has to be drawn up; (b) necessary facilities have to be created and materials, equipment, tools, etc., have to be made available; and (c) teachers have to be trained accordingly. Single-handed efforts by the educational institutions to build up a new constructive

attitude towards manual labour will not be adequate. Similar efforts should be concurrently made by other agencies to help dispel the misconceptions about manual labour.

The National Curriculum and Syllabus Committee was constituted late in 1975 to 'examine in detail the proposals and recommendations made by the Education Commission, give the Government practical advice for implementation of relevant recommendations of the Commission, and reorganize the curricula and syllabi accordingly. The first and second volumes of the report of the National Curriculum and Syllabus Committee, respectively for the Primary (grades I-V) and Lower Secondary (grades VI-VIII) stages, have been submitted to the Government and the remaining volumes of the report for Secondary (grades IX-X) and for Higher Secondary (grades XI-XII) stages, are nearing completion.

In the Primary curriculum, 'Environmental Education' has been introduced as a new comprehensive subject which includes elements of natural and social sciences. The experiences required of the learners, include acquaintance with and respect for the occupations of the local people. In the Lower Secondary curriculum, 'Developmental Work-oriented Education' has been introduced as a new subject. It includes Agriculture, Industry, Social Welfare and Home Economics, and the syllabus for each subject requires students to do a specified amount of manual labour outside the classroom. In the curriculum of the Secondary stage, work-oriented education is a required subject. Six periods, out of 40 periods a week, have been allotted for work experiences in the curriculum. Similar provisions are likely to be made in the curriculum for the Higher Secondary Stage.

A scheme has been launched at the government's initiative to build 'work companies' in educational institutions. At the initial stage, at least one high school in each thana* and one college in each sub-division will form work companies. Universities will have their own companies. The direct objective of forming work companies in educational institutions is to involve the youth in national development work for achieving self-reliance and self-sufficiency. The indirect objectives are to mobilize the student population to do manual work in the rural environment in co-operation with the local people, so that the barriers of

* Administrative units equivalent to a police district

communication and co-operation between the educated and uneducated sections of the people may be torn down. The idea of forming work companies in educational institutions may be considered a prelude to the curricular work experiences coming up in the near future.

The Swanirvar or self-reliance movement is gaining increasing popularity among and support from the people. The integrated development work done under the auspices of the movement is co-ordinated by committees at local and higher administrative levels. These committees have responsibilities of combining education, mostly of the non-formal type and work.

Inter-departmental co-ordination is established and maintained by mutual agreement among departments and agencies. The main thrust is on integrated rural development and a large majority of programmes operate under the umbrella of the Integrated Rural Development Project (IRDP), an agency of the Government. For any given project the human and material resources are identified and mobilized, and representatives of different departments and agencies meet to determine their respective duties and responsibilities.

The national policy aims at total development, a process in which education is both a component as well as a catalytic force. The combining of education with work experience is being particularly emphasised in non-formal education programmes. Two areas of priority have clearly come into focus: (a) skill-oriented education for the out-of-school youth, and (b) mobilization of community resources, including voluntary labour, for all development work.

The paradoxical situation that there are large numbers of educated unemployed while at the same time skilled manpower is in short supply, clearly points out that students passing out of the general education system mostly lack employable skills, and also that the infrastructure for skill training has not properly developed. To correct the situation, at least partially, it has been planned to establish more polytechnic and vocational training institutes. The latter type of institutions are intended to cater to the needs of early school leavers and of the rural economy.

In order to man the on-going development projects and to encourage establishment of agro-based industries, it

is necessary to prepare medium-level skilled manpower. On-the-job training is one way of handling the problem. This type of training programme already exists for certain areas of education. The expansion of this programme is being actively considered. Currently, multifarious short-term and off-time trade courses in the polytechnic institutes have created considerable interest among semi-skilled workers and have attracted them to the programme.

Agriculture is the principal occupation of the vast majority of the people. Without involvement of agricultural activities no developmental work is conceivable today. In non-formal education programmes and in the self-reliance movement, agriculture is very much emphasized. The Comilla Model of co-operatives has been known and praised in many parts of the world. In every self-reliance project, area co-operatives are encouraged. In many cases the Comilla Model is adopted to suit the peculiar needs of the localities and clienteles.

At present there is no institution as such responsible for research relating to problems of combining education with productive work experiences. But there are institutions with the potential of designing and conducting such research. Such institutions include the Institute of Education and Research, Dacca University; the Bureau of Educational Information and Statistics; the Academy for Fundamental Education; and the Foundation for Research on Educational Planning and Development.

B. Re-orienting school programmes to combine education and productive work experiences

1. Primary level

The importance of work experience for small children as part of general education was recognized long ago. Accordingly, it was suggested in the curriculum of Primary Education in 1960 that students and teachers should take part in some form of light physical labour, for one hour each week. The curriculum also provided for opportunities of working with one's hands in the classroom. Hand-work in the form of practical art was made compulsory for all children of primary classes. Teachers were to set an example and devise activities to get children interested in manual work and foster a sense of dignity of labour.

Suggestions were also made for such activities as repair and upkeep of school property, gardening and agriculture at home and school.

However, no comprehensive programme could develop in this field until 1970.

Programme of practical agriculture education in the primary schools

In 1970, UNICEF in collaboration with the Education Directorate, launched a programme of practical agriculture education in primary schools. The objectives of the programme were to implement the practical agriculture aspects of the general science syllabus for classes IV and V; to improve classroom teaching on agriculture and nutrition within the general science syllabus; and to diffuse knowledge of agricultural practices and nutrition through the students to their homes. The programme started as a pilot project with a target of 6,000 primary schools. In 1974 as many as 16,000 schools, either officially or voluntarily, came under the programme.

Forms of work experiences provided to children related to actual cultivation of land and producing crops i.e. tilling the land, sowing seeds, using manures, irrigating the land, clearing weeds etc. Students took care of the crops and participated in harvesting and selling the crops. The activities took place both during and after normal school hours. The time assigned for the general science class was 7.7 per cent of the total school time. For the practical aspects of the general science syllabus, no fixed amount of time was allotted.

Training programmes were organized at the Primary Training Institutes for primary school teachers with emphasis on basic agricultural and nutritional aspects. Training facilities were also made available to the personnel connected with primary education and Primary Training Institutes. Some 17,000 teachers from nearly 12,000 primary schools, 409 Thana Education Officers, Superintendents, Assistant Superintendents and three Instructors from each of the 47 Primary Training Institutes were given in-service training in agriculture education till 1975. Seminars, conferences, and workshops were organized at the district and sub-divisional headquarters with participants from education departments as well as other related departments,

institutes and organizations. Each programme-school received a money grant and/or tools and free seeds of winter vegetables.

Agriculture guide books, for use by the training institutes, teachers-in-training, and the programme schools, were centrally prepared and distributed by the Education Directorate with assistance from UNICEF.

Factors such as inadequate irrigation facilities, lack of trained agriculture teachers and non-availability of the teacher's guide book affected the school agricultural programme. Late arrival of UNICEF seeds, crop stealing, damage of crops by animals, lack of teachers' interest and opposition of guardians complicated things further. Only 36 per cent of the schools in which students undertook cultivation employed teachers trained in agriculture. Less than half of these schools received agriculture guide books.

Although in terms of yield per acre, the student cultivation programme did not appear to be very effective, as a training programme for students it was quite successful. An overwhelming majority of primary school students in Bangladesh were found to be interested in the school agricultural programme.

Muktangan (outdoor) primary education project

Another experiment in combining education with productive work experience for primary school children was the Muktangan (outdoor) Primary Education Project, launched in 1976 by the Ministry of Education in co-operation with the Institute of Education and Research, Dacca University.

The objectives of the programme were to make primary education attractive to young children by making them learn from their environment, so that the alarmingly large drop-out rate could be reduced. It was also felt that a more realistic and practical education for primary school children would help them grow into useful and productive members of the community. The programme, therefore, tried to give them the rudiments of village professions, so that school learning could be put to practical use.

The work experiences included in the programme were village surveys; agricultural work; skill oriented crafts; study of animals, birds and insects; study of plants, trees, shrubs, fruits and vegetables; identification and conservation of local resources; study of local geography, such

as rivers, canals, irrigation system, rainfall, communication system, agricultural products, etc.; marketing and distribution of local products; health, sanitation and food habits; study of the system of local government, such as union council, co-operative, etc.; participation in games, sports, music and other recreational programmes; and participation in development and social welfare activities.

The new curriculum for primary schools

The idea of combining education and work experiences has been emphasized in the new curriculum for primary school children, which is being implemented from 1978. Following is a brief review of how the new curriculum plans to combine education and work experiences at the primary level.

Work experiences is planned to be introduced to primary school children through such subjects as environmental studies, physical education, and arts and crafts. Through environmental studies children will actively participate in cleaning their classroom and school, their own clothing, their home and its surroundings, etc. They will also be involved in the various development projects of their locality, and in agricultural work.

Through arts and crafts children will prepare toys and dolls, make plates, glasses, flower vases, ashtrays, flutes etc., with clay; prepare various materials and use those to decorate classrooms on special occasions; learn some needle work so that they can fix buttons, make bags with cloth and jute yarn, learn to make and sew articles like pillow covers, pyjamas, table cloths etc.; learn to knit sweaters and socks with wool; prepare bags and envelopes from unused paper; learn to bind books; weave with cane, jute yarn, reed or thread, etc.

No fixed time has been allotted for carrying out the practical aspects of the three subjects, namely environmental studies, arts and crafts, and physical education. But it has been emphasized in the curriculum that a part of the time allotted for each subject be spent on letting the children gain practical experiences.

No arrangement has been recommended for training the teachers who will be in charge of the practical aspects of

these subjects. However, suggestions have been made in the curriculum for retraining of teachers and for the revision of the curricula of teacher training institutes as a whole. It has also been emphasized that primary school teachers should be oriented towards new methods of teaching and learning. Agriculture is already a part of the primary teacher training curriculum. Much emphasis has also been given to the use of appropriate teaching aids.

2. Secondary level

The secondary level of our education system consists of three stages: lower secondary stage which includes classes VI to VIII, secondary stage which includes classes IX and X, and higher secondary stage which includes classes XI and XII.

The importance of combining education with work experiences for all levels of education in the country needs no emphasis, but for the secondary level of education such an approach to education is particularly significant. Secondary education is considered terminal education for a very large section of our student population. Work-oriented education, therefore, is expected to solve the youth employment problem to a considerable extent. The Education Commission of Bangladesh in its report pointed out that every year about 450,000 students between 14 to 17 years of age (of classes IX to X) drop out of schools for various reasons and enter into active social life mostly without any preparation for earning their living. The effects of such a situation for individual and national welfare can be well understood. The need to save the youth from utter frustration and ensure their fruitful and effective participation in gainful national production and other developmental activities was realized by the Commission which recommended the introduction of work experiences as an integral part of the curriculum for the secondary stage.

The new curriculum

The curriculum for the secondary stage provides for introduction of work-oriented education as an integral part of general education. The general objectives of such work-oriented education are:

a) To develop interest and ability to participate in ordinary household activities of everyday life.

b) To develop a sense of postive value towards manual labour and a sense of respect of the manual labourers through active participation in manual work.

c) To establish close relationship between the school and the local community.

d) To establish close relationship between education and the world of work.

e) To develop love for work and an aptitude for work.

f) To develop awareness about different areas and means of production and also to develop ability to handle them effectively.

g) To develop creative ability.

h) To develop self-confidence in solving the problems of everyday life.

i) To develop habits of co-ordinating neuro-muscular activities.

j) To create opportunities for participation in local development activities and also to ensure such participation.

k) To stimulate interest for participating in social welfare activities and contributing to the growth of national production and income.

l) To help in developing the total personality of the students.

m) To encourage and enable students to go for self-employment.

n) To develop an aptitude and liking for a future career.

The new curriculum provides for combining education with work experiences in four subjects areas: agriculture, industry, social welfare, and home economics. In selecting these subjects careful consideration was given to the economic and social demands and activities to be generated in rural and urban areas. It is expected that the study of these subjects with both theoretical and practical orientation would enable the students to participate in some useful economic and developmental activities in the society.

Provision has been made in the syllabi of these subject areas to give a wide variety of work experiences suitable for different age groups. The subjects will cover the following broad areas with suitable work experiences.

Agriculture. Since agriculture is the mainstay of the economy in the country, it is needless to emphasize the importance of knowledge about developments in the field of agriculture and their application for economic development of the country. The modern concept of agriculture extends beyond simple cultivation of land and growing of crops to soil treatment, seed development, crop treatment, irrigation, livestock, poultry, fisheries, and related areas. Specific information on different aspects of agricultural activities along with required work experiences have been outlined in the detailed syllabi for different classes.

Industry. Industrial pursuits of the community play an important role in the development activities of the society. An acquaintance with such industrial pursuits in terms of skills and workmanship required for them and their contribution to the total economic development of the community and society, and active participation in such activities are essential for developing a changed attitude towards manual work and building up a responsible productive manpower. The syllabus for the subject provides for both theoretical knowledge and practical experiences in the following industrial and development activities: metal works and welding, woodwork, cane and bamboo work, weaving and dying, jute goods making, doll and toy making, leather work and shoe polishing, masonry and house building, road construction, electrical works, car repair and servicing, and many other small and local industrial activities. Local facilities, expertise and personnel will be extensively used.

Social Welfare. The understanding of social welfare and participation in social activities will stimulate human values in the individual and enable him to contribute to the social and economic wellbeing of the members of the society. The importance of such welfare education can never be denied to any society which aims at social justice and welfare. The syllabus for this subject includes an understanding of a variety of social environments, social facts, social groups, existing demographic facts and trends, individual and social needs for food, nutrition, medical

assistance, educational facilities, health services, etc., social problems such as educational drop-out, unemployment, beggary, etc., social organizations such as co-operatives, youth organizations, adult education etc., and their implications for the individual and the society. A desirable and wholesome attitude towards these can only be developed through a positive approach and direct participation which have been made a requirement for the course.

Home Economics. The main purpose of the study of home economics is to develop an aptitude and ability to live a purposeful, respectable and healthy family and social life. The development of a respectable, skilful and self-confident and understanding personality is an essential precondition for successful family and social living. The content of the subject includes an understanding of family and social relationships, knowledge about elements of social living, home making and home management, food values and food preparation, clothing and garment making, knitting, first aid, etc. Specific aspects of the broad field of home economics are prescribed in the syllabi for different classes. Work experiences are, in fact, the process through which such education can be organized and imparted.

The work experiences in the four selected subject areas will, initially, involve a survey of the local economic activities, of the number of workshops, factories. production facilities available, of products and other related information. Such a survey will actually provide a basis for preparing a programme of activities relating to work experience for the students during one academic year.

The Education Commission suggested introduction of a separate stream of vocational education at the secondary stage and suggested that it be extended up to class XI of the Higher Secondary Stage. However, the Commission recommended to extend vocational education up to class XII with an orientation of some specialized areas of study such as, engineering, medicine etc. These recommendations of the Commission are under active consideration by the Curriculum Committee.

Among the four subject areas: agriculture, industry, social welfare, and home economics, one subject of 100 marks shall be made compulsory for each student of the general education stream of both the Lower Secondary and Secondary Stages. The work-oriented subject will be taught for five periods of 40 minutes each a week at the Secondary Stage.

Work-oriented education has been structured and designed in such a way that work experience activities can be made available to all students at this stage. An open-ended strategy has been developed to fit it in the school programme with the time available for work experiences. The teacher and the school administration has been allowed an option to extend the programme of activities relating to work experiences even beyond the normal school hours. To suit local situations, such activities may also be arranged on days when the school is on holiday.

Strategies for implementation

Provision has been made to provide training in work-oriented education to the teachers and other educational personnel through the Teachers' Training Colleges which offer courses with a strong practical bias, and through the Bangladesh Education Extension and Research Institute which offers in-service training in a number of subjects. Further training and orientation in a number of economic and social activities can be obtained from specialized technical institutes, agricultural extension services, social welfare institutes and other agencies.

The number of trained teachers and other educational personnel may not initially be able to cope with the need of the schools. In view of such a situation, the curriculum provides for the participation of local trade experts and related personnel in the educational activities of the schools. The shortage of trained personnel in specialized fields of study can be alleviated with the help of local trade experts. Therefore, this approach will bring the school closer to the community and their mutual relationship will ensure better learning and widen the scope of future employment.

As the curriculum goes into operation, textbooks and other materials will be made available to the students. It is however, anticipated that local artisans may not always participate in the school programme and that textbooks and other aids may remain in short supply.

The new curriculum provides for attaching the students to local farms, factories and other facilities to give them first-hand experience. Assistance of the farmers, craftsmen and tradesmen will have to be sought for this purpose.

Other opportunities for work experience at the secondary stage

Pre-vocational education programmes are not available in the country. But vocational education for the 12-16 years age-group in a number of trades and crafts such as carpentry, smithy, weaving, ceramic works, pottery, leather works etc. are offered in 22 vocational institutes in the country. Some 54 new vocational institutes are to be established by 1980. Evening courses are also offered in different trades and crafts in 13 polytechnic institutes.

At the secondary stage multilateral schools offer courses in agriculture and industrial arts as elective subjects as part of general education. Such programmes combine theoretical lessons with practical work experiences and encourage students to make use of these work experiences in their everyday living. In some cases, the opportunity is open for further education in these special fields.

3. Tertiary level

Since the beginning of the current decade there has been an increasing demand in this country for re-orienting tertiary level educational programmes to combine education and productive work experiences. The institutions concerned with this level of education are of two categories: (a) institutions concerned with general education and (b) those concerned with specific professional and/or vocational education programmes.

While some programmes of tertiary level education, mostly in the areas of technical and professional education, incorporate production-oriented work experiences, the institutions of higher learning concerned with general education, with a few exceptional cases of professional programmes, rarely offer such programmes as part of their formal curricula. However, there has been a recent move to encourage students and teachers of universities and general colleges to take part in different national development programmes.

The formal programmes of education, which incorporate some productive work experiences as a part of the curriculum, seek to acquaint the student with the job he would perform after completion of the professional or vocational education. This is achieved through internship programmes

of different duration, depending upon the nature of educational programme and institution. The voluntary informal programmes aim at cultivating in the student community a spirit of love and respect for manual labour, productive work and the common man who is engaged in such work so that the student community, which tends to become separated from the world of work, may be integrated with the people and their life.

An attempt is made in the following section to briefly describe the formal programmes of productive work experiences for each type of institution, followed by the informal programmes which are now being conducted on voluntary basis.

Degree colleges

About 600 colleges with an enrolment of half a million students cater to the needs of post-secondary general education in this country. About one-third of this enrolment is in the first degree level courses in three areas, namely arts (humanities), science, and commerce, with humanities taking the lion's share. The usual duration of this degree programme is two years. With the exception of a negligible amount of practical and laboratory work involving some work experiences in the area of science, the curricula of these degree courses are mostly theoretical and bookish in nature.

The objective of practical and laboratory work as required for the students of the B.Sc. degree programme in subject areas such as physics, chemistry, botany, geology, zoology, geography, psychology, statistics, etc. is mainly to acquaint them with the theoretical knowledge in those subject areas rather than to acquaint them with the world of work outside the college laboratory.

Laboratory work consists of mostly experimental verification of an already confirmed body of essential knowledge and principles in the field of science and technology. In this situation there is rarely any scope of either creative work beyond the syllabus or integrating laboratory work with similar productive work in industries and practical life. The syllabus, and hence the contents for laboratory work, are geared to the theoretical knowledge of the respective subject areas, and these are obviously determined by the universities to which colleges are affiliated.

Combining education and work

Generally a quarter of the total credit in a science subject is assigned to practical work. But there are some subject areas (e.g., mathematics) in which practical work is not required. Besides, paucity of facilities, trained personnel, and funds compell many colleges to curtail the required amount of practical work even for the few students who enroll.

There is no formal arrangement for regular training of teachers and other educational personnel at this level. The minimum qualification for teaching at this level is Master's degree of a recognized university. Once this is obtained, the holder is assumed to have sufficient qualification for teaching without any additional refresher training. However, the Institute of Advancement of Science and Technology Teaching conducts summer refresher courses in science and technology for teachers of this level, but the intake capacity of the Institute and the participation rate in these courses are so small that this effort can never ensure the training of a vast number of science teachers. Besides, this training is not specifically production-oriented, although efforts are made to acquaint the participating teachers with the latest developments in their respective fields.

Commercially developed equipment, instruments, chemicals, and other materials are used for laboratory work and demonstration. While some of these materials and equipment are being indigenously produced, most of them are still being imported from industrially developed countries.

It is thus obvious that the formal programmes of education at this level do not incorporate any substantial amount of production-oriented course work in spite of the felt need for this. The curricula need to be thoroughly revised to incorporate contents based on productive work experiences so that students may have a more direct exposure to the world of work around them. The mass media should make plans for supplementing the programmes of educational institutions with enriched knowledge and information.

There are currently four general universities with around 34,000 students. While the curricula of the first degree programmes of the general universities are by and large similar to those of the general colleges in respect of objective, content, and form, the post-graduate degree

programmes in science and technology and the professional degree programmes of the specialized institutes and colleges under the universities aim at preparing high-level manpower suitable for different professions, and as such these programmes incorporate various amounts of work experience in the form of laboratory work, practical work, on-the-job training, internships, educational tours, surveys, participation in projects, and so on, even though the curricula for these degrees are also predominantly theoretical.

Although the curricula of these post-graduate and professional degree programmes are determined by the Academic Council of each university, the university departments, institutes and colleges offering these specialized degrees enjoy varying extents of autonomy in deciding about the actual content and form of work experiences and the manner of dealing with them.

The faculties of sciences require their students for the Master degree to devote at least one-quarter of their schooling time to practical work in laboratories and/or workshops, often within the university campus and occasionally in selected industrial or commercial organizations. Some of the departments conduct regular external surveys or educational tours. Their students tend to get some acquaintance with productive work outside the university campus. As an example, the case of the students enrolled in the M.Sc. degree programmes in applied physics, applied chemistry, biochemistry, social science, pharmacy, zoology, botany, physics, chemistry, applied mathematics, statistics, psychology, and geography, and those enrolled in the M.A. or M. Com. degree programmes of the faculties of social sciences and commerce may be mentioned.

Students of the Institute of Education and Research, the Teachers' Training Colleges, Technical Teachers' Training College, College of Physical Education and the Education Extension and Research Institute get an opportunity for on-the-job training and some amount of productive work experience. Specially, students of industrial arts, agricultural education, and technical education have to spend a substantial amount of their schooling time in workshops, industrial plants, or agricultural fields doing productive work. Besides, students of the Institute of Business Administration, the Institute of Statistical Research and Training, and of the Institute of Nutrition are given some amount of on-the-job training.

Combining education and work

Graduate and post-graduate students of the medical colleges and the Post-Graduate Institute of Medicine have to spend a major part of their schooling time in hospitals and laboratories.

Students enrolled in the degree programmes of the College of Home Economics and the College of Fine Arts and Crafts have in their curricula quite a significant amount of production-oriented performances.

Different degree programmes differ in their emphasis upon work experiences as part of the curricula. However, it may be said that the work-related programmes mentioned here require between a quarter and a half of the total school time. In general the highly specialized and professional degree programmes require a larger amount of time for practical work. Work experiences of the kind mentioned in this section are available to nearly a half of the total enrolment of the general universities including the specialized Institutes and Colleges under them.

A majority of the teachers concerned with the programmes mentioned here have had professional preparation and training in advanced countries. Many of them are experts in their respective areas. Those who were not trained abroad do in fact get a training under the guidance of these experts.

The general universities use a variety of sophisticated equipment, instruments, instructional materials, etc. for their laboratories and workshops. They have to import them mostly from the advanced countries. The mass media like television and radio are yet to develop any programme for university education. Although the universities publish a few specialized journals, a large number of professional journals, are naturally required to be imported from the advanced countries.

In sum, it would appear that university degree programmes are still theory-bound. With the exception of professional degree programmes, university education is very remote from actual work experiences. Even programmes which do require some amount of practical work are not really production-oriented.

University of Engineering and Technology, Agricultural University and the Colleges

The Bangladesh University of Engineering and Technology and the engineering colleges have a total enrolment

of nearly 4,000 students in different degree programmes. The initial programme is a four year Bachelor of Science (Engineering) degree in areas such as civil engineering, mechanical engineering, electrical engineering, chemical engineering, and architecture. Most of the students are enrolled at this level. Although there is a provision for a Master degree, very few students are enrolled in that programme.

The Bangladesh Agricultural University and the Agricultural College have currently a total enrolment of nearly 3,000 students in Bachelor and Master degree programmes of different subject areas.

The degree programmes of these seats of higher education are purely professional in nature and require students to undergo rigorous practical and field work including on-the-job training. These programmes are obviously production-oriented. Even though the curricula contain a sufficient amount of theoretical knowledge, this is required to be verified by application in practical life. The principal objectives of these degree programmes are to produce high-level manpower capable of applying scientific knowledge to the solution of problems of the physical world.

Engineering students have to conduct experiments in laboratories and workshops in order to develop an insight into the applicability of the theoretical, scientific and technological knowledge they acquire throughout their course work. They are also required to conduct field surveys. Besides, the engineering students are required to spend a few months exclusively in some internship programme with agencies engaged in engineering and productive works. During this period they get practical on-the-job training and direct experiences in productive work. Agricultural students, too, conduct experiments in laboratories as well as in agricultural fields. Thus they also develop an insight into the applicability of scientific knowledge in actual production. These students get even a greater opportunity for practical training.

Engineering and agricultural students of these degree programmes are required to devote about half of their school time to some kind of practical work.

Most of the teachers of this level have training in their respective areas of specialization from the advanced countries of the world. They are mostly outstanding

scholars and experts in their fields. Besides, they get frequent opportunities for refresher training abroad.

Although some instructional materials and equipment are being made in this country, most of the sophisticated instruments, equipment and materials needed for both engineering and agricultural education are imported. For instruction at this level provision for the use of mass media like television and radio is yet to be considered.

Tertiary level technical and vocational education

Technical and vocational education at tertiary level is available in Polytechnic and Commercial Institutes, Nursing and Paramedical Schools, Textile Institutes, National Development Institutes, the Swedish-Bangladesh Institute of Technology, Graphic Arts Institute, other pre-service and in-service training institutes, and Primary Training Institutes.

These post-secondary level institutions are to produce thousands of middle-level skilled manpower to work as supporting staff under the supervision and guidance of professional personnel. This applies particularly to the technical institutes and nursing and paramedical schools. Besides, it is expected that a large number of the skilled personnel produced through these institutions would be self-employed in their respective vocational areas and would thus make a substantial contribution to the economic, social and industrial development of the country. The Primary Training Institutes are, however, concerned mostly with the pre-service preparation of teachers of primary schools.

Students in most of these programmes are required to undergo rigorous training in jobs related to their respective vocations and participate in production-oriented work. Practical work in a workshop or a laboratory or a field situation gets a greater emphasis than mere theoretical knowledge. In most of the technical and vocational education programmes, a major part of the school time is devoted to work experiences. Students of Primary Training Institutes devote at least one quarter of their school time to practical work either in the school or in laboratories, workshops, or fields. In fact, many of the institutions require their students to produce certain tools, appliances, materials or articles of use either in the institutional

workshops or in an industrial plant to which they are often attached. The curriculum of the Primary Training Institutes now includes training in agriculture and farming and participation in some developmental activities.

While some facilities are available within the country for training teachers and other educational personnel of these institutions many possess foreign training in their area of specialization. A large number of teachers of these programmes had their initial training from the same institutions where they are now employed.

Many of these institutions have the capacity for producing some instructional materials and equipment and in fact they are doing so. But they still need to import sophisticated instruments and appliances from other countries. Mass media are rarely used for instructional purposes.

Problems

Self-employment as an objective for these educational programmes has remained only a wish. In reality, the technicians produced by these institutions tend to be mostly employed by the public sector. There is a discernible trend of unemployment or underemployment for those who fail to get jobs in the public sector.

Student participation in Development Tasks and Community Service

Informal and sporadic attempts have been made by either individuals, or groups of teachers and students, or departments and institutes within the universities, to participate in community development, or development projects of a variety of nature. However, their impact on the student community as a whole or on the economy of the country has remained insignificant. Besides, these sporadic and informal work experiences have never been considered as enriching the education of the participating students, whose number was usually quite small compared to that of the non-participating mass of students. The only value that seems to accrue from these activities is that they tend to set examples to other students.

However, encouraged by the trend of student participation in projects like the Brahmaputra Excavation and Embankment Project, the Ulasi-Jadunathpur Irrigation and Community Development Project, and hundreds of other rural development projects, the government has recently instituted

a programme for student participation in development activities under the name of 'Work Company'. This programme, as planned, is ambitious and wide in scope and coverage. Hence it is described here.

Steps have been taken to form Work Companies with a group of not exceeding 100 students in each institution, in every university and college and in selected high schools throughout the country. Each Work Company will choose a project for socio-economic development of a rural community and work on it in co-operation with the members of the community and local government officials. The objectives of the programme are: (1) to give students in higher education first-hand acquaintance with the socio-economic problems of rural communities; (2) to generate in them love and respect for physical labour and for those who are engaged in such work; (3) to relate higher education with the problems of the rural economy; and (4) to develop in the students a sense of dignity of labour through participation in rural development work.

Although the programme of Work Company will depend on voluntary participation, it appears to have been planned in a manner conducive to fair and large-scale participation by students enrolled in institutions of higher learning throughout the country. The government has already formed a central organizing committee to plan and initiate the programme. This committee will co-ordinate the activities of the local bodies to be formed later. If sustained motivation and financial support are provided by the government and the educational institutions, there is a fair chance for the realization of its objectives. The only deficiency of the programme is that it is informal and has not been recognized as an integral part of the academic work of the students to be involved.

According to the plan, each Work Company will select a convenient rural development project, will work on it jointly with the community and under the guidance of a central co-ordinating agency. Work is to continue during vacations and holidays. The participating students will possibly get financial support to cover incidental cost, and will live with the community during the period of work. The work projects may cover a large spectrum of activities within the context of socio-economic development of rural Bangladesh.

C. Combining education and work for out-of-school populations

In a developing country like Bangladesh, where a vast majority of the population (about 75 per cent) is illiterate, and the literate population contains mostly people with a primary education background, there is a great need for some form of education for the out-of-school population in order to develop a manpower suitable for the socio-economic emancipation of the nation. Recognizing the fact that education is a lifelong process and that a continuous process of education for the out-of-school population is a pre-requisite for meaningful and effective participation in development efforts, the Planning Commission of Bangladesh incorporated in the First Five Year Plan (1973-78) an ambitious programme of non-formal education for the out-of-school population. The programme was to be administered through the Integrated Rural Development Programme (IRDP) under the auspices of the Bangladesh Academy for Rural Development. The plan envisaged a three-pronged thrust for non-formal education activities: (1) Provision of skills to out-of-school youths and adults; (2) Spread of mass education and functional literacy; (3) Education related to development needs through the extensive use of educational technology. Though the Planning Commission appeared to have given equal priority to each of these three efforts in non-formal education the subsequent policies of the government agencies seem to emphasise work-oriented adult education programmes.

While extensive experimental programmes of non-formal education are being undertaken according to the plan, a wide variety of non-formal education activities already exist in the country. They are sponsored by various ministries, agencies, and even individuals. The major areas of activities includes: (1) Literacy/Adult Education Programmes (Ministry of Education and private organizations); (2) Agricultural extension programmes (Ministry of Agriculture); (3) IRDP, BARD (Comilla), Rangunia Thana Co-operative Programmes (Ministry of Rural Development); (4) Health Education (Ministry of Health and private agencies); (5) Family Planning (Ministry of Family Planning and private organizations); (6) Women's Home Development and Skill Training Programmes (Ministry of Social Welfare and private organizations); (7) Industrial Labour Training (Ministry of Labour); (8) Armed Forces Training Programmes; (9) Various

programmes under BWA, YMCA/YWCA, Girls' Guides, Youth Clubs, MVA etc.; and (10) Programmes sponsored by some educational institutions. These programmes have obviously been designed according to the philosophy and concepts of their respective sponsoring agencies regarding the educational needs of their clienteles.

Although the Planning Commission did not specify any priority in respect of age groups to be covered by non-formal education activities, the existing programmes and the ones envisaged under the IRDP, tend to include out-of-school children, youths, and young adults. In fact, the IRDP has recently developed a comprehensive plan for experimentation with non-formal education in Sirajganj sub-division covering out-of-school population below the age of 20.

Currently, very few programmes for non-formal education of out-of-school population are equivalent to the programmes of formal education. The contents of adult education/literacy programmes are similar to those of primary education only in respect of the skills for reading, writing and numeracy. The other non-formal education programmes are primarily work-oriented in nature. The IRDP envisages some work-oriented equivalency programmes of non-formal primary education for youths beyond the primary school age as a 'second chance' education. These programmes, when implemented, would effect a convergence of the world of education and the world of work, ensuring both work-oriented education and education-oriented work.

PART II

A. Project Report: Bangladesh Rural Advancement Committee (BRAC)

Background

Bangladesh Rural Advancement Committee, popularly known as BRAC, was formed in 1972 in order to provide assistance to the people affected by the widespread devastations during the 1971 Liberation War. At the early stages, BRAC's operation was concerned with providing relief and rehabilitation to the affected people. BRAC's experience in the area convinced them that mere providing of relief in the form of materials and cash could not be the solution to the problems of abject poverty, disease and illiteracy of the people. Instead of withdrawing from the area and closing its operation, BRAC considered the possibility of long-time involvement in the area by initiating integrated rural development programmes which would lead to long-term benefits to the poverty-stricken people of the locality.

In this new venture, BRAC sought the financial support from its original sponsor, OXFAM, who readily agreed to support such a rural development programme both financially and materially. The rural development programmes started in December 1972.

Location of the project area

The project area is located in the south-eastern part of the Sylhet district, about 260 miles north-east of Dacca. The project area is approachable by road and motor boat from Sylhet town.

The project area covers the whole of *Sulla* thana, three unions of *Dearai* thana and two unions of *Baniachong* thana in the district of Sylhet, covering an area of 160 square miles. The area is comprised of low lands, 90 per cent of which is flooded during the monsoons. A population of approximately 120,000 live in the 200 clustered villages. The density of population of the area is about 750 per sq.

mile which is rather low for Bangladesh, the average being 1,400 persons per sq. mile. However, the habitable land is much more densely populated due to the shortage of highlands for making homesteads. The population consists of about 60 per cent Hindus and 35 per cent Muslims. As this is a good fishing area, fishermen communities (mainly Hindus) had settled in the area. Agriculture is the primary occupation of 80 per cent of the population with fishing as a secondary occupation. However, for about 20 per cent of the people, fishing is the primary occupation.

The total cultivable land area is about 64,000 acres of which 40,000 acres are single crop land, planted during December-January; the rest of the land grows transplanted *Aman* rice, planted in August and September. The area is an excellent fishing ground with big lakes and rivers. The entire land mass except the scattered villages are inundated annually which enhances the fish production in the area.

Objectives and philosophy of the project

Before venturing into the rural development programme, the BRAC authorities gave careful consideration to finding a strategy that would be integrated in the true sense of the term and would result in a self-sustaining system that would work even after the withdrawal of BRAC assistance from the project area. Keeping this point in view, BRAC felt that the problems which affected the villages directly, such as diseases, over-population, extreme poverty, illiteracy, lack of village organizations, etc., should be given priority. From this it was concluded that a multi-sectoral integrated programme had to be launched which would attack the above problems simultaneously. Another premise was that the paternal approach to rural development in this country was doomed. So the project was to be designed in such a way so that maximum local involvement would be encouraged, as a built-in self-sustaining element for the survival of the programme in the long run.

With the above considerations, the new phase of BRAC started in November 1972 with the following objectives:

a) to create and develop the human and institutional infrastructure for self-sustaining and self-generating development activities in rural Bangladesh;

b) to improve the economic condition of the rural families by helping them adopt more productive farming practices, and increase earning from non-agricultural sources, including income-supplement activities of women;

c) to provide basic preventive and curative health care and family planning services at an affordable cost;

d) to build local institutions and to expand basic educational opportunities, so that the people can actively participate in their own affairs and the development activities can become increasingly self-managed;

e) to make an effort for improvement of the living condition of the poorest and most disadvantaged rural families, who often fail to become the beneficiaries of rural services.

It may be noted that BRAC puts special emphasis on the development of human and social infrastructure in the project area as a precondition to launching capital-intensive programmes, such as mechanization of agriculture, mechanized fishing and marketing of perishable goods through building of cold storages, which BRAC would like to postpone until phase III. In this sense, BRAC's approach to rural development is rather different from other projects initiated by the government or by any other voluntary agency.

Programme and activities

In its attempt to organize and operate a truly integrated rural development programme, BRAC considered development activities that would affect all the problems of village development, namely, agriculture, co-operatives, health and sanitation, family planning, illiteracy, women's problems and community development.

Relating to the problem areas mentioned above, BRAC has been engaged in eight sectoral activities since 1973. These are: (a) medical care and public health, (b) family planning, (c) *Gonokendra* (Community Centre), (d) functional education, (e) agriculture, (f) co-operatives, (g) fisheries and (h) women's programme. A brief description of each of these programmes follows.

Medical care and public health programmes

Organized during the aftermath of the liberation war, the medical and public health programme is one of the BRAC's earliest and strongest programmes. During phase I four medical teams operated in the field camps in early 1972 and provided medical services to about 200 patients daily. Initially, treatment and medicine was provided free of cost till June 1972 when a token fee of Tk. 0.30 was charged.

During Phase II (started in 1973), the need for expanding the medical services was felt and the coverage of the entire project area was planned. The following were the objectives of the Phase II medical programme:

a) To train a cadre of paramedics to treate 18-20 illnesses and injuries.

b) To conduct inoculation and vaccination campaigns in the villages.

c) To motivate the villagers to improve sanitation facilities.

d) To incorporate public health education into the adult education programme.

e) To develop a cadre of lady family planning organizers who would identify fertile couples, enlist them and supply them with family planning contraceptives.

The BRAC medical programme is built around the paramedic system with doctors available for training and referral services. Since the paramedic is the key person in implementing a rather extensive medical programme, the training of the paramedic is given much importance. In order to qualify for admission, the prospective paramedic has to be (a) well motivated, (b) willing to travel from village to village, (c) acceptable to the community, and (d) at least a matriculate.

The first paramedic training programme started in May 1973, with 26 trainees out of which 12 completed the course. The second batch of paramedics have been trained under the revised training programme. At present 31 paramedics are working in the field under 11 camps. Each paramedic has to serve five to seven villages with 5,000 people on the average. He is required to visit each village once

a week, making house-to-house calls and providing treatment to the sick people. The diseases which are beyond the competence of the paramedic are referred to medical officers in charge of the three clinics operating in the project area. The paramedics have been trained for diagnosis and treatment of the 12 most common diseases, such as (a) diarrhoea, (b) dysentry, (c) typhoid fever, (d) common cold and influenza, (e) pneumonia, (f) sore throat and bronchitis, (g) scabies, boils and ringworms, (h) round worms and thread worms, (i) anemia, (j) fever, (k) headache and (l) smallpox.

A training manual has been prepared by BRAC where common symptoms of these diseases have been listed and treatment suggested. The paramedics are supposed to follow the steps listed in the treatment manual. It is estimated that about 5 per cent of the patients usually need referral to the medical officer and the rest are handled by the paramedics. The paramedic is a regular employee of the BRAC and is paid a salary of Taka 250 to Taka 300 a month.

The three clinics, in addition to regular treatment, are equipped to do laboratory tests of stool, urine, blood and sputum. The clinics are also equipped to perform minor surgery, vasectomy operation and IUD insertion.

The Medical Insurance Programme

Based on BRAC's objective of making development efforts self-sustaining and getting the clients more involved in the development process, BRAC has introduced a medical insurance programme in the project area. Before the introduction of the insurance programme, a consulting fee of Tk. 0.50 was charged to the patient in addition to the cost of medicines. Average cost of treatment worked out at Tk. 2.50 per patient. A majority of the patients were not able to pay even this small amount. In response to this problem, BRAC introduced a group health insurance programme with the following conditions: (a) a group consisting of at least 75 per cent of the population of a village with a minimum of 175 people can enter the scheme, (b) an annual premium of 4 kgs. of paddy per person is to be paid in advance, (c) the insured must accept and cooperate in the BRAC preventive health programme, (d) BRAC is to provide weekly paramedical curative health services to the group, including referrals to doctors, without further cost.

The health insurance programme was launched in May 1975. It was estimated that throughout the project area 40-50 per cent of the people were willing to join the programme, but only 10 per cent of the families were able to meet the requirement of 75 per cent participation. It was planned that the premiums for the poor section who could not pay would be paid by the richer section of the population. This was hard to achieve although in a few cases premiums for the poor were paid by the better-off people. By July 1975, 37 groups covering 13,500 people joined the insurance programme. The total number of people who benefited from the BRAC medical programme since 1973 stands at 45,036.

The income from the insurance scheme is not expected to cover the costs of the medical programme. However, the objective is to motivate the people to accept the benefit of the BRAC medical programme rather than living exploited by the village quacks. In the long run, if the insurance scheme becomes popular among people, 5-10 per cent of the cost may be covered from the sale of the paddy collected as insurance premium.

The Family Planning Programme

Next in importance to the medical programme, the family planning programme of BRAC reflects the general concern about the high birth rate leading to a population boom in Bangladesh.

The BRAC family planning programme centres round the village-based female workers called the Lady Family Planning Organizer (LFPO). Generally, a LFPO belongs to the village where she works.

LFPOs receive one week's training and six-monthly refresher courses conducted at the field clinics for developing their skill as family planning workers. They are responsible to the Field Motivator and directly supervised and assisted by the paramedic in charge of the village.

A total of 110 LFPOs have been trained, of whom 87 are now working in their home villages. Their functions consist of registering all the couples of child-bearing age in their area of operation, covering on the average 500-700 couples; house-to-house motivation for enrolling fertile couples aged 20-34 in the programme; regular delivery of contraceptive supplies and follow-up of her clients;

seeking services of the paramedic in case of complications and side effects; referral of clients willing to have IUD insertions, tube ligation and vasectomy to one of the three BRAC clinics providing these services, and collection and recording of family planning data. She is also to organize a mothers' club in her village and assist the paramedic during club days.

An LFPO is paid Tk. 30 per month and is paid a bonus of Tk. 0.50 per client. Although the LFPO's functions require some literacy, due to the dearth of educated village women some illiterate women who have been considered otherwise qualified have also been recruited. Four doctors, two MBBS and two National Diploma holders are employed in the three family planning centres, providing sterilization and other supporting services.

The BRAC family planning programme started in January 1974 with the training of the first batch of 38 LFPOs. Since then successive batches have been trained and developed. At present 87 are working in the 220 villages in the project area. Oral pills were found to be the most popular method of contraception and priority was given to oral pill distribution. The number of acceptors rose steadily month by month until a maximum of 2,105 clients was reached in May 1975. A review of family planning performance in one month (January 1976) showed a high incidence of drop-outs specially in the case of pills. One of the main causes of drop-out appear to be the various complications arising out of pill taking.

The Functional Education Programme

The BRAC claims that it has been able to evolve a very suitable functional literacy programme for rural Bangladesh through trial and error. After a faulty approach, BRAC completely revised its functional literacy programme which eventually met with success. BRAC rightly attacked illiteracy on a priority basis because success of many of its other programmes, such as agriculture, medical care and public health, family planning etc., depended a great deal upon the people's ability to understand instructions. Simple literacy and numeracy was also essential for the villagers in their day-to-day life. A pre-project survey indicated that about 90 per cent people of the project area were illiterate.

Combining education and work

Initially BRAC planned to remove illiteracy within three years. Literacy centres were formed in the 220 villages and 293 local men and women were trained as teachers. Enthusiasm among the villagers was high and as many as 5,000 illiterates were enrolled. But interest began to decline quickly. Although 255 literacy centres were opened, a high drop-out rate, diminishing community interest, flood damage, etc., resulted in the closure of more than half of the centres and discontinuation of many others.

Following this initial failure of the programme, a thorough review was made leading to the conclusion that mere teaching of alphabet and arithmetic was not enough to hold the interest of the learners. The main reason for this poor interest was that the curriculum was not related to the needs and problems of the rural learners. In order to solve the problem, BRAC felt that the quantitative aspect of the programme had to be scaled down and new methods and materials had to be developed which would be useful to the learners in their daily life. In this task, BRAC enlisted the assistance of consultants from World Education of New York to develop, test and evaluate, on a pilot basis, an adult non-formal functional education strategy for eventual implementation throughout Bangladesh. The specific objectives of this new strategy were: (a) to maintain the learners' interest and participation in the programme, (b) to enable the learners to read with understanding and write tolerably, (c) to modify the learners' attitude and behaviour toward family planning, nutrition, health and agricultural practices.

In order to develop appropriate learning materials, BRAC field workers conducted a survey in 19 selected villages to identify problems, needs, interests and concerns of the potential learners. The survey result showed that the villagers needed functional knowledge in the following areas: (a) soil and use of fertilizers, (b) IRRI cultivation, animal husbandry and poultry, (c) fisheries and pisciculture, (d) co-operatives, (e) nutrition, (f) hygiene and public health, (g) family planning (male-orientation), (h) family planning (female-orientation), (i) child care, and (j) cottage industries.

Under the revised curriculum, a total of 1,176 illiterates were enrolled and 61 centres were started with 35

male and 26 female teachers from the project area. The course consisted of 80 lessons, 70 per cent of which constituted the core and 30 per cent were specifically designed to meet the needs and interests of the male and female learning groups.

The new approach generated the expected interest among the learners, teachers, and BRAC's own field staff. There was a marked improvement in attendance and the drop-out rate was reduced to a great extent. Of the total initial and subsequent enrolment of 1,260 in the first cycle, 520 (41 per cent) completed the entire 80 lesson course. In the second cycle, 53 more centres were selected and 1,087 illiterates were enrolled. By the end of January 1976, these centres completed their course graduating 591 learners (51 per cent).

The Agriculture Programme

In its effort to improve agricultural practices in the project area, a number of measures were undertaken by BRAC. These are:

1. Agricultural support blocks. The area covered by BRAC project is predominantly agricultural with one-crop *Boro* land suitable for cultivation in the dry season from November to May. Over 70 per cent of the villagers of the area are dependent on agriculture. Each planting season 20-30 agricultural support blocks with an average of 50 acres of land are organized by BRAC workers in the 11 camp areas for cultivation of high yield varieties of rice. Five to six hundred block farmers receive day-to-day support from BRAC Field Motivators on procurement, dosage and application of fertilizer and insecticide, supply of seeds and constant supervision of the farmers at work.

2. Camp demonstration plots. Each of the 11 BRAC camps organized their own demonstration plots completely worked by BRAC personnel. An average of two acres were leased from local farmers for rice and wheat demonstration and half-acre plots for different varieties of vegetables. These plots were worked by teams of BRAC workers living in field camps.

In addition to demonstrating improved methods of cultivation, the BRAC workers were able to establish their credibility with the farmers as their equals. The sight

of university graduates ploughing and transplanting brought laughter and sarcasm from the villagers at first, but the seriousness and persistence of BRAC workers soon changed their attitude to one of respect. When the plants stood out as some of the best that they have seen grown in the area, the cultivators started asking for advice and requesting BRAC workers to visit their fields.

3. Input and logistic support for the landless. During the past agricultural seasons, BRAC organized groups of landless labourers and destitute women to cultivate fallow land leased from local landlords at nominal rate. BRAC provided all inputs and recovered the cost after harvesting. These groups received the services of BRAC power tillers and power pumps on a priority basis and special care and attention were given by BRAC workers for the success of these activities.

4. Vegetable cultivation. Prior to BRAC's activities, vegetable growing was almost unknown in the area. After three years of intensive extension and demonstration work, vegetable gardening has received wide acceptance in the project area. Vegetable seeds imported by Mennonite Central Committee were distributed each year free of cost to approximately 10,000 families and to primary and secondary schools in the project area. It is estimated that about 500 to 800 acres of land were put under vegetable cultivation by men, women and children every year. Vegetables such as carrots, broccoli, or Chinese cabbage, were grown with great success alongside the traditionally grown tomato, cauliflower, radishes, etc.

5. Low lift pump and power tiller service. Since 1973, BRAC procured 19 power pumps and 10 power tillers. These tillers were hired for bringing fallow land under cultivation for the benefit of the landless and other destitute groups.

Small farmers lacking ploughing animals were provided power tillers at a reasonable rent. Power pumps were hired out to groups of farmers for rice cultivation. BRAC workers were attached to each pump unit to ensure optimum use of power pumps and good water management. Average acreage irrigated by a BRAC supplied power pump was over 52 acres compared to the national average of under 20 acres.

6. Food for work programme. BRAC organized 'food for work' programmes during the dry season of 1974-75 in

order to improve the physical infrastructure; a number of small embankments, drainage and irrigation channels were excavated voluntarily by local people under this programme. During the early flood of 1974 in the area, BRAC was able to save 60 per cent of the crop by building embankment in day-and-night work, while the neighbouring areas suffered total crop destruction.

7. Setting up workshops for agricultural implements.

BRAC has set up a small workshop at *Markuli* for repair and maintenance of its own agricultural machinery. Equipment for the workshop has been ordered from Singapore to expand the facilities so that it may be made available to the people of the area.

The co-operative movement

BRAC felt that individual initiative coupled with a widespread co-operative approach would be the only way which can lead to the emergence of Bangladesh from the grave present situation. With this philosophy in mind, BRAC launched a movement to organize co-operative societies in order to generate concerted group action for development. BRAC workers in the field have put tremendous effort into the formation and development of co-operative organizations.

Farmers, fishermen, traders and women's groups were organized into co-operatives. These groups were kept under observation for six months to assess their ability before registering them with the Government co-operative department. Attention was given to the formation of the management group, and wherever possible proportional representation of members in the management group was ensured.

According to BRAC reports, over 120 co-operative societies of farmers, fishermen and women, and landless farmers have been formed and are actively functioning in the project area. BRAC admits that the co-operative spirit has not yet taken a deep root in the *Sulla* project area although substantial progress has been made and the savings of the co-operative societies amount to more than Tk.200,000. Activities of co-operative societies are still limited to the credit and input needs of the members. Involvement of co-operatives in the community development activities still remains a far cry.

The fisheries project

Fish as a food constitutes the main protein intake of Bangladesh people - rich and poor alike. But protein deficiency is so widespread in Bangladesh that it affects growing children and is responsible for lowering physical and mental efficiency, resistance to disease and the work capacity of almost half of the population. So the processing, preservation, and efficient marketing of the fish wealth of Bangladesh demands high priority. The BRAC project area is an excellent fishing ground which abounds in closed and open fisheries in *haors* (large lakes), lakes and rivers.

The BRAC programme on fisheries was aimed at meeting part of the input needs of the fishermen so that the dependence on money lenders could be reduced. BRAC imported 10,000 lbs. of nylon twine from South Korea for distribution to fishermen's co-operatives. The nylon twine was distributed at a nominal cost of Tk. 20 per lb.

In order to develop pisciculture in the project area, six large tanks were excavated and a number of tanks were rehabilitated under the 'food for work' programme. In these tanks, *Nilotica* fingerlings imported by UNICEF from Thailand were introduced. A number of fishermen and youth groups were sent to Jamalpur for training in *Nilotica* culture. In order to help individual fishermen in the slack monsoon season when organized fishing cannot be undertaken, 200,000 fish hooks were imported from India and Singapore and distributed to the fishermen. One thousand six hundred and fifty one boats were made and distributed to the fishermen's co-operatives.

BRAC feels that the programmes in fisheries implemented so far has had only peripheral impact. Input requirements for the fishermen's co-operatives are so large that despite assistance from BRAC, the fishermen's community still remains dependent on money-lenders and the marketing operation still remains in the hands of the middlemen.

The women's programme

The BRAC women's programme was inspired by the thinking that women in the rural areas constitute a human resource which remains entirely unutilized. Except for doing household chores and helping in the harvesting seasons, rural women do not engage in any regular economic

activity. In the male dominated household, the death of the bread-winner, the husband or the grown-up son spells disaster for most women, reducing a substantial number of them to destitution.

In its efforts to organize some vocational programmes for women to free them from helplessness, BRAC planned to establish four vocational training centres for destitute women so that they can earn a subsistence income for themselves and their families. However, it was possible to establish only one such vocational training centre at one of the camps at *Derai* in the project area. In three batches 89 women received training for three months in tailoring. UNICEF donated cloth for making children's garments and the trainees were able to utilize these by making clothing while they learnt. The children's clothing was sold to local children at nominal price.

Plans for the establishment of other vocational centres, in which women would learn weaving, had to be abandoned due to the scarcity of cotton yarn in Bangladesh. BRAC shifted emphasis from teaching skills to developing social consciousness through functional education and the development of women's co-operatives and working groups. As many as 30 women's co-operatives have been organized for agriculture, horticulture, net-making, tailoring, etc. BRAC provided loans and other inputs to these co-operative societies. These societies are being encouraged to plan their own future activities with BRAC workers ready to provide whatever services they need.

The youth programme

BRAC made an attempt through the Field Motivators to build up some kind of youth programme. The FMs met groups of primary and high school boys in their schools, and persuaded them to organize themselves into development work groups. Twenty-two *Yuba Sanghas* (Youth associations) were formed with a view to promote social education among the youth.

BRAC organized a four-day training programme of key members and secretaries of the *Yuba Sanghas* at the controlling camp at *Markuli*. The training programme consisted of (a) family planning, (b) role of the youth in building up the country, (c) *Ananda Majlish* (cultural activities) and (d) public health.

Continuing education and work

It appears that the BRAC youth programme has not taken root in the rural development work in the project area. BRAC also failed to get the expected response from the youth groups of the locality.

Organization

BRAC has a governing body at the top and under it an executive director who is entrusted with the operational responsibility. The governing body is comprised of five members including the Executive Director.

The headquarters of BRAC is located at Dacca, about 260 miles away from the project area. The key personnel at the headquarters office are the executive director who is assisted by two executive assistants and one secretary, the statistical head, head of administration and chief accountant. The head of administration is also in charge of the editorial staff of the monthly 'Ganakendra', the mouthpiece of BRAC.

The field organization is much more elaborate. To ensure efficiency of operation, the project area has been divided into 11 sectors (camps) under two zones. There are 42 field motivators (FM), each operating within a five village unit. In addition to the FMs, there are 30 paramedics providing certain health and family planning services. Each peramedic operates within an area of 6-7 villages with an average population of 5,000. There are an average of four field motivators and three paramedics operating in each camp and reporting to an area manager who is in charge of the camp. The area managers report to one of the two programme co-ordinators, who in turn reports to the field co-ordinator who is based at the controlling camp at *Markuli*. The field co-ordinator is the operational head at the local level and he is directly responsible to the executive director at Dacca.

The camps or offices of each of the 11 sectors have been built at strategic points on the land donated by the people of the particular area. BRAC has provided construction materials for building these camps. Most of them are small two to three room houses built with timber and C.I. sheet roofing.

Costs and finance

The entire costs of the BRAC projects are financed through external assistance. The contributions by the

clients toward total cost are very negligible. Prior to the introduction of the health insurance programme, all the BRAC services were free of cost. The health insurance programme which charges only 5 kgs. of paddy per person is expected to cover only 5 per cent of the total BRAC expenditure on health services.

From November 1972 to December 1975 BRAC has spent an amount of Taka 4,148,579 (US $276,572) for all the sectoral programmes. The funds for all these expenditures were supplied jointly by OXFAM, England and Canada.

Except in the case of the medical care and public health programme, per capita cost for BRAC operations appear to be very high. One of the reasons may be the heavy initial investment which was necessary for building the minimum physical infrastructure. Another factor for the high cost was that the BRAC workers had to be paid more than normal salary and benefits in order to induce them to live and work in a remote village area under difficult conditions and sometimes without the basic amenities of life.

Achievement of the BRAC programmes

The BRAC programmes originated from relief work in the *Sulla* area and went into rural development work with a commitment and experience in the area. As has already been mentioned, BRAC's strategy of rural development was different from that of other agencies. BRAC put an emphasis on building up human and social infrastructure in the villages of the project area so that development efforts would not be imposed from above. BRAC's approach was to heighten awareness among the villagers so that they would know by themselves what were their problems and they would willingly participate in the programmes. In this objective, BRAC has been successful to a great measure. In a majority of the villages in the project area, people seem to be conscious of their needs.

Social conditions, taboos, prejudices and age-old traditions have a strong influence on the life of the villagers. BRAC has been able to break through the barriers of these die-hard traditions and customs and has been able to organize literacy programmes, family planning, medical care and public health schemes, and the co-operatives and vocational programmes.

Combining education and work

The literacy programmes as originally planned and tried did not meet with success. The revised functional approach has been more attractive and interesting to the villagers and drop-out rates have gone down. The present literacy programmes reflect the life-needs of the people and lessons are related to their own problems.

The family planning programme, although geared at present to women only, has met with limited success. Inspite of the difficulties, the people have at least become aware of the need for practising family planning.

BRAC's most successful programme has been the medical care and public health programme. However, as mentioned earlier, BRAC should attempt to remove the causes of common diseases rather than putting emphasis on treatment. Supply of tube-wells to all the villages and improving the sanitary conditions are primary needs.

The health insurance programme, though otherwise plausible, would not render any benefit to the poor and the landless. Some modifications in the programme should be made to include the poor free of charge.

The agricultural, fisheries and other co-operatives have made some progress under BRAC's guidance. However, considering the needs, the progress so far made is not very impressive. The co-operatives should be activated more on a self-help basis. The co-operatives of the landless should be given all possible help, including the provision of land, so that they have a chance to improve their own lot.

The supply of agricultural inputs, such as fertilizers, pesticides, pumps, tillers, seeds etc. should be regular and adequate. BRAC can work with the relevant government agencies in this respect.

The women's programme, though well planned, did not work well. The objective of the women's programme was to create employment opportunities and increase earning power of destitute women through vocational training centres. Only one centre out of four that were planned could operate for a short while, but did not create any impact on the locality.

The youth programme organized by BRAC was rather poorly planned and therefore did not take roots in the area.

One of the basic reasons for its failure was that it was given less than a fair trial. BRAC hurriedly started the youth group activities and due to pre-occupation with other projects left this one on its own. Poor follow-up was equally responsible for the failure of this programme.

Evaluation of the experiences generated in the project

The BRAC project has been evaluated, though not very intensively, by an external and international agency, called the International Council for Educational Development (ICED), U.S.A. An in-depth evaluation study by BRAC itself is planned in the near future. Some important findings and comments of the ICED evaluation study are presented below.

At the cost of a major share of the total financial resources and over one-half of the manpower in the project area, the health and family planning programme achieved the participation of approximately 15,000 residents (out of a total of 120,000) in the health insurance scheme, and reached a level of about 2,000 (out of a potential number of 20,000) married women of child-bearing age as acceptors of a family planning method. The tangible impact of these programmes in terms of health and family planning status of the population appears to be marginal after three years of operation. Obviously, the health care programme has not provided a sufficiently widespread, sustained, and intensive service to make a dent in the family planning problems.

About 2,600 project area residents participated in the functional education programme and about one-half of this number is reported to have completed the lessons. We are not sure, however, what the completion of the course means in terms of new skills, knowledge, and attitudes. Most of the completers do not appear to have acquired a usable level of reading and writing skills, nor is there any evidence that any systematic effort was made to help the learners make the connection between the lessons and individual and collective self-help projects. Methodology and content of the functional education programme was a distinct improvement over the traditional adult literacy efforts, but an effective approach is yet to be developed for making functional education truly functional, that is, for its having a significant bearing on the current circumstances and future life prospects of the participants.

The agricultural promotion activities benefited less than 1,000 households, including 600 farmers in the 'support blocks' and 300 landless labourers, although the extent of improvement in the economic status of these households was not clear from available information. Another 10,000 families were reported to have benefited from the distribution of vegetable seeds and fruit plants and saplings.

The effort to help improve the status of women through conventional skill training did not succeed and was abandoned in favour of more systematically organized collective economic projects through co-operatives and joint savings. It was possible to organize only a small number of such group activities by the end of second phase of *Sulla*. BRAC also encouraged formation of more traditional farmers' co-operatives and assisted in improving the performance of the existing ones. BRAC's efforts created a firm base for the extension of the government's Integrated Rural Development Programme (IRDP) to the project area. The co-operatives facilitated the supply and distribution of agricultural inputs for the members; however, the total number of beneficiaries was small and the co-operative structure was yet to take a firm root, expand its coverage, and become the main instrument for agricultural and rural transformation that it was intended to be.

It should be noted along with this catalog of achievements and failures that the total time-span of the second phase of Sulla was about three years, the total financial resources committed were less than Tk. 4 million, and the involved BRAC staff comprised less than 100 young people, most of them without any professional expertise or high level training.

The most enduring achievement of the Sulla project so far is to be found not in the quantitative record of performance of the sectoral activities, but rather in the fact that it brought to the surface various problems of development programmes intended to help the rural poor, established a base of institutional structures and experienced personnel, and pointed the direction to be taken in reshaping and re-orienting the programme during the third phase of Sulla and in other new projects. The questions raised above can be fruitfully explored if we look at the BRAC experience in this light - as a continuous striving

towards the development of a viable integrated approach for helping the needy and disadvantaged to help themselves through collective efforts.

B. Project Report: 'Muktangan' (outdoor) Primary Education Project

Background

The Government of Bangladesh has been concerned over the poor quality of education imparted in the primary schools of the country. In an attempt to improve the quality of education at the primary level through introducing a realistic and practical system of education, the Ministry of Education formed a 22 member committee in November 1975. The terms of reference for the Committee were to prepare a curriculum for outdoor primary education and introduce this curriculum on an experimental basis in 500 schools in 15 selected *thanas* throughout the country. Accordingly, the outdoor primary education project was launched on an experimental basis in the selected schools.

Objectives of the project

The major objectives of the project were twofold: (a) to make primary education more interesting and attractive, by allowing young children to learn from the environment, so that the alarmingly high drop-out rate at the primary stage could be reduced; and (b) to provide a realistic and practical education to primary school children so that they may grow up as useful and productive members of the community in which they would live as adults. It was assumed that it would be proper to teach them the rudiments of village professions, so that the school learning could be put to practical use.

Programme content

In order to prepare a suitable curriculum in line with the above objectives, a working committee was formed with members selected from the central committee. The committee analyzed existing primary school textbooks in order to pinpoint relevant concepts. On the basis of this analysis, it was felt that in addition to what the children learn from the textbooks, they should be provided with practical learning experiences from their own immediate environment. With this end in view, the curriculum and teacher's guide was divided into two parts: part one contained the

syllabus of activities which could be completed outside the school and part two contained the syllabus which would need to be followed in the classroom.

Outdoor activities were listed for all the classes from I-V depending on the age, interest and ability of the children. Such outdoor activities included the following: (a) village surveys of all types, (b) agricultural work, (c) skill-oriented craft work, (d) study of local animals, birds and insects, (e) study of plants, trees, shrubs, fruits and vegetables, (f) identification and conservation of local resources, (g) study of local geography, such as rivers, canals, irrigation system, rainfall, communication system, agricultural products, etc., (h) marketing and distribution of local products, (i) health, sanitation and food-habits, (j) study of the system of local government, such as Union Council, Co-operatives, etc., (k) participation in games, sports, music and other recreational activities, and (l) participation in development and social welfare activities.

Besides, these specific outdoor activities for various classes, supplementary activities related to textbooks materials were listed so that the teachers could provide learning experiences from the environment even after the end of the experimental phase of the project. The draft of the curriculum was ready by December 1975, and was further revised and printed in January 1976. The curriculum for outdoor primary education is a comprehensive 65 page source book containing guidelines and instructions for the teachers.

The next phase of the project was to select the 500 schools throughout the country. In line with the criteria established in a meeting of the central committee, 400 schools were selected from areas of 'Swarnirvar' (self-help) programmes of extensive cultivation of high yielding varieties of paddy and also food procurement areas. The remaining 100 schools were selected from areas close to five selected P.T.I.'s in the country. Accordingly 15 thanas were selected from 10 districts. For purposes of easy accessibility and effective supervision, clusters of schools were selected.

In order to launch this innovative programme effectively, training of the teachers concerned was essential in view of the fact that the project involved new ideas and

techniques. Besides, wholehearted support from the teachers was a definite pre-condition for success of an experimental project such as this. Fifteen training centres were selected in the project areas and training was conducted in the government schools in the nearest district or sub-divisional headquarters for four days. The training programme was largely attended by the teachers of the selected schools.

During the training, which lasted eight hours each day, the curriculum booklet distributed earlier was thoroughly discussed and guidelines were given for outdoor activities listed in the curriculum. On the last day of training, the teachers were handed out progress report forms which they were to fill up and send to the Institute of Education and Research in two instalments, listing the activities completed during the project period. The teacher training programme was completed by 20 January 1976. The programme of teaching according to the 'Muktangan' project started from 26 January 1976.

It was thought that the school management committees could play a significant role in improving the quality of primary education in the country. Particularly important was the fact that without the interest, support and involvement of local people, an experimental project such as this would not be successful at all. School management committees were therefore assigned the responsibility of supervising the 'Muktangan' primary education programme.

One of the essential components of the project was to keep contact with the 'Muktangan' teachers and enhance their training through radio programmes. Nine weekly programmes, each of half an hour's duration, were broadcast on Saturday under the School Broadcast Programme of Radio Bangladesh. In these radio programmes, selected speakers discussed the activities that were to be covered each week and gave hints of probable problems and their solutions.

Close supervision of the project was essential in order to ensure its efficiency. It was decided that the members of the central committee would undertake as many supervision tours as possible during the period.

It was found during supervision tours that in many schools teachers were sincerely carrying out the listed outdoor activities, while negligence on the part of a few teachers was revealed in some other schools. However, due

to shortage of time and lack of personnel, intensive supervision of all the schools was not possible.

It was felt necessary that the Muktangan project should be properly evaluated specially because a project of this nature might have significant and far-reaching effects. Therefore, research and evaluation was thought to be a basic component of the project.

Population covered

The 'Muktangan' primary education was introduced in 500 selected primary schools at the initial stage, spread over 15 *Thanas* of the country. Two thousand five hundred teachers and 100,000 students were involved in the project.

Organization and cost

The implementation of the Muktangan primary education was entrusted to a 22 member national committee assisted by the Ministry of Education and its implementing organ, the Directorate of Education. The overall responsibility for planning, curriculum preparation, training of the teachers and supervision of the project was given to the Director of the Institute of Education and Research, Dacca University. The Director was assisted by his colleagues at all levels of implementation of the Project.

All funds for the project were supplied by the Ministry of Education. An estimated amount of Taka 400,000 (US $25,000) was sanctioned for the project, out of which only Taka 280,000 (US $18,000) were spent. The bulk of the expenditure was spent on training allowances for the 2,500 teachers.

Results achieved

As originally planned, an evaluation study was undertaken after the conclusion of the experimental period of the project. Data on various aspects of the project were collected from as many as 220 schools through personal interviews and filling up of questionnaires. The study was carried out by the faculty members of the Institute of Education and Research, University of Dacca. Following is a summary of their findings:

a) Regarding the objective of making primary education more realistic and work-oriented, 67 per cent of the teachers felt that this was achieved to some extent.

b) As to the question of how much opportunity the students got to learn the habit of working with their own hands, 32 per cent of the teachers indicated that the students got this opportunity to a great extent; 60 per cent felt that the students got this opportunity to some extent; while 8 per cent of them felt that very little opportunity was provided to the students in forming the habit of working with their own hands.

c) The teachers were also asked to express their opinion as to whether the Muktangan Education Project helped the primary school students to become self-reliant. Almost 100 per cent of the teachers affirmed that this was the case.

d) In the opinion of the majority of the teachers the teachers' training programme for the Muktangan Primary Education Project was useful to the respondents in implementing the programme.

e) The result of the study also confirmed that the Muktangan primary education curriculum has been more helpful than the prevailing book-centred curriculum in preparing students for their future life.

f) One of the specific objectives of the Muktangan Primary Education experiment was to provide students with opportunities to acquire skills through participation in village surveys, agricultural activities and manual work; and through observation of animals, plants and processes involved in conservation of local resources. According to a large majority of the responding groups of teachers this objective seems to have been realized at least to some extent.

g) It was revealed through the study that the radio programmes for Muktangan Primary Education were not as effective as desired. The most plausible reason for the failure of this aspect of the effort is that only very few primary school teachers in the remote rural areas of Bangladesh either own or have access to a usable radio set.

h) Student attendance tended to increase substantially in primary schools during Muktangan

education days as compared with that during non-Muktangan days. Student attendance appeared to have increased substantially in primary schools during the period of Muktangan education as compared with that during the same period of the previous year (when no such programme was introduced).

Evaluation of the experiences generated in the project

A number of positive gains have been achieved through this short experimental project. Its innovative features have undoubtedly made it attractive to both the students and the teachers. However, the extent of achievement has not been uniform in all the schools mainly due to differences in motivation and sincerity on the part of the teachers involved.

Inspite of a number of problems which include extreme poverty of the parents, lack of minimum facilities in the schools, and shortage of teachers in some of the schools, the Muktangan primary education programme made a breakthrough in the improvement of the quality of the primary education in the country. As a result of the Muktangan experiment, the National Curriculum and Syllabus Committee adopted some features of the programme for inclusion in the syllabus of the primary schools. Besides, another project along the same lines, but more intensive and comprehensive, has been started by the Ministry of Education in 200 selected schools of the country. This project has been titled 'Muktangan Project II'. Obviously, the present project is the result of the encouragement gained with the success of the Muktangan primary education project.

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